

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

(Attorney Docket No. 000479.00127)

In re U.S. Patent Application of Cirillo, et al.)	
)	
Application No. Unassigned)	Group Art Unit: Unassigned
)	
Filed: February 11, 2004)	Examiner: Unassigned
)	
For: MEASUREMENT AND SIGNATURE)	
INTELLIGENCE ANALYSIS AND)	
REDUCTION TECHNIQUE)	

INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Pursuant to 37 CFR §§1.97 and 1.98, the Applicant wishes to make the following references of record in the above-identified application. This Information Disclosure Statement is in compliance with the continuing duty of candor as set forth in 37 CFR §1.56. Copies of the references cited below are enclosed. The references are also listed on the enclosed and completed form PTO/SB/08A.

This Information Disclosure Statement is filed under 37 CFR §1.97(b) within three months of this application's filing date or before the mailing date of a first Office Action on the merits. Accordingly, there is no fee due for filing this Information Disclosure Statement.

Under 37 CFR §1.97(g), the filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made.

Under 37 CFR §1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the cited references are, or are considered to be, material to patentability as defined in 37 CFR §1.56(b).

REFERENCES

- Jones, U.S. Patent No. 4,801,939, issued January 31, 1989 for "High-Speed Data Compressor/Decompressor for Synthetic Aperture Radar"
- Moreira, et al., U.S. Patent No. 5,661,477, issued August 26, 1997 for Methods for Compressing and Decompressing Raw Digital SAR Data and Devices for Executing Them"
- S. A. Kuschel, B. Howlett, S. Wei and S. Werness, "ASARS-2 Complex Image Compression Studies Final Report", ERIM, March 1997.
- G. Poggi, A. R. P. Ragozini, and L. Verdoliva, "Compression of SAR Data Through Range Focusing and Variable-Rate Vector Quantization", IEEE Transactions on Geoscience and Remote Sensing, Vol. 38, pp. 1282-1289, May 2000.
- I. H. McLeod, I. G. Cumming, and M. S. Seymour, "ENVISAT ASAR Data Reduction: Impact on SAR Interferometry", IEEE Transactions on Geoscience and Remote Sensing, Vol. 36, pp. 589-602, March 1998.
- U. Benz, K. Strodl, and A. Moreira, "A Comparison of Several Algorithms for SAR Raw Data Compression", IEEE Transactions on Geoscience and Remote Sensing, Vol. 33, pp. 1266-1276, September 1995.
- J. Fischer, U. Benz, A. Moriera, "Efficient SAR Raw Data Compression in Frequency Domain", IGARSS'99: IEEE International Geoscience and Remote Sensing Symposium Proceedings, Vol. 4, pp. 2261-2263, 28 June – 2 July 1999.
- P. Eichel and R. W. Ives, "Compression of Complex-Valued SAR Images", IEEE Transactions on Image Processing, Vol.8, pp. 1483-1487, October 1999.
- S. Peskova and S. Vnotchenko, "Analysis of Complex SAR Raw Data Compression", CEOS 1999.
- R. Kwok and W. T. K. Johnson, "Block Adaptive Quantization of Magellan SAR Data", IEEE Transactions on Geoscience and Remote Sensing, Vol. 27, pp. 375-383, July 1989.
- G. Schirinzi, "SAR Raw Data Compression Techniques", CEOS, October 1999.
- V. Oppenheim and J. S. Lim, "The Importance of Phase in Signal", Proceeding of the IEEE, Vol. 29, pp. 529-541, 1981.
- Randal C. Reininger and Jerry D. Gibson, "Distributions of the Two-Dimensional DCT Coefficients for Images", IEEE Transactions on Communications, Vol. COM-31, No. 6, pp. 835-839, June 1983.

Julia Minguillon and Jaume Pujol, "JPEG Standard Uniform Quantization Error Modeling with Applications to Sequential and Progressive Operation Modes", Journal of Electronic Imaging, Vol. 10, No. 2, pp. 475-485, April 2001.

Gregory K. Wallace, "The JPEG Still Picture Compression Standard", IEEE Transactions on Consumer Electronics, December 1991.

G. Mercier, J. Mvogo, M. Mouchot, G. Cazuguel, and J. Rudant, "Compression of Temporal Series of Registered SAR Images", CEOS, 1999.

Bing Zeng and Anastatios Venetsanopoulos, "A JPEG-Based Interpolative Image Coding Scheme", IEEE Publication 0-7803-0946-4/93, 1993.

James W. Owens and Michael W. Marcillin, "Rate Allocation for Spotlight SAR Phase History Data Compression", IEEE Transactions on Image Processing, Vol. 8, No. 11, pp. 1527-1533, November 1999.

Norman B. Nill, "A Visual Model Weighted Cosine Transform for Image Compression and Quality Assessment", IEEE Transactions on Communications, Vol. COM-33, No. 6, pp. 551-557, June 1985.

Andreas E. Savakis, "Evaluation of Algorithms for Lossless Compression of Continuous-Tone Images", Journal of Electronic Imaging, Vol. 11, No. 1, pp. 75-86, January 2002.

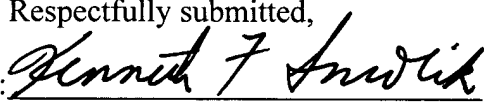
Dorian Kermish, "Image Reconstruction from Phase Information Only", Journal of the Optical Society of America, Vol. 60, No. 1, pp. 15-17, January 1970.

John A. Saghri, Andrew G. Tescher, and John T. Reagan, "Spaced-Based Data Compression Issues", Journal of Electronic Imaging, Vol. 3, No. 8, pp. 301-310, July 1999.

N. Beaucoudrey, T. Seren, D. Barba, and X. Morin, "Data Compression for Transmission of Polarimetric SAR Signal by Vector Quantization - Performance Evaluation", CEOS, 1999.

Hans Marmolin, "Subjective MSE Measures", IEEE Transactions on Systems, Man, and Cybernetics, Vol. SMC-16, No. 3, May/June 1986.

Date: February 11, 2004

Respectfully submitted,
By: 
Kenneth F. Smolik
Registration No. 44,344
BANNER & WITCOFF, LTD.
10 South Wacker Drive
Suite 3000
Chicago, Illinois 60606
Telephone: 312-463-5000
Facsimile: 312-463-5001

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 2

Complete if Known

Application Number	Unassigned
Filing Date	February 11, 2004
First Named Inventor	Cirillo
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	00479.00127

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
	1	US-4,801,939	01/31/1989	Jones	
	2	US 5,661,477	08/26/1997	Moreira, et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	3	S. A. Kuschel, B. Howlett, S. Wei and S. Werness, "ASARS-2 Complex Image Compression Studies Final Report", ERIM, March 1997.	
	4	G. Poggi, A. R. P. Ragozini, and L. Verdoliva, "Compression of SAR Data Through Range Focusing and Variable-Rate Vector Quantization", IEEE Transactions on Geoscience and Remote Sensing, Vol. 38, pp. 1282-1289, May 2000.	
	5	I. H. McLeod, I. G. Cumming, and M. S. Seymour, "ENVISAT ASAR Data Reduction: Impact on SAR Interferometry", IEEE Transactions on Geoscience and Remote Sensing, Vol. 36, pp. 589-602, March 1998.	
	6	U. Benz, K. Strod, and A. Moreira, "A Comparison of Several Algorithms for SAR Raw Data Compression", IEEE Transactions on Geoscience and Remote Sensing, Vol. 33, pp. 1266-1276, September 1995.	
	7	J. Fischer, U. Benz, A. Moriera, "Efficient SAR Raw Data Compression in Frequency Domain", IGARSS'99: IEEE International Geoscience and Remote Sensing Symposium Proceedings, Vol. 4, pp. 2261-2263, 28 June - 2 July 1999.	
	8	P. Eichel and R. W. Ives, "Compression of Complex-Valued SAR Images", IEEE Transactions on Image Processing, Vol. 8, pp. 1483-1487, October 1999.	
	9	S. Peskova and S. Vnotchenko, "Analysis of Complex SAR Raw Data Compression", CEOS 1999.	
	10	R. Kwok and W. T. K. Johnson, "Block Adaptive Quantization of Magellan SAR Data", IEEE Transactions on Geoscience and Remote Sensing, Vol. 27, pp. 375-383, July 1989.	
	11	G. Schirinz, "SAR Raw Data Compression Techniques", CEOS, October 1999.	
	12	A.V. Oppenheim and J. S. Lim, "The Importance of Phase in Signal", Proceeding of the IEEE, Vol. 29, pp. 529-541, 1981.	
	13	Randal C. Reininger and Jerry D. Gibson, "Distributions of the Two-Dimensional DCT Coefficients for Images", IEEE Transactions on Communications, Vol. COM-31, No. 6, pp. 835-839, June 1983.	
	14	Julia Minguillon and Jaume Pujol, "JPEG Standard Uniform Quantization Error Modeling with Applications to Sequential and Progressive Operation Modes", Journal of Electronic Imaging, Vol. 10, No. 2, pp. 475-485, April 2001.	

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	15	Gregory K. Wallace, "The JPEG Still Picture Compression Standard", IEEE Transactions on Consumer Electronics, December 1991.	
	16	G. Mercier, J. Mvogo, M. Mouchot, G. Cazuguel, and J. Rudant, "Compression of Temporal Series of Registered SAR Images", CEOS, 1999.	
	17	Bing Zeng and Anastatios Venetsanopoulos, "A JPEG-Based Interpolative Image Coding Scheme", IEEE Publication 0-7803-0946-4/93, 1993.	
	18	James W. Owens and Michael W. Marcillin, "Rate Allocation for Spotlight SAR Phase History Data Compression", IEEE Transactions on Image Processing, Vol. 8, No. 11, pp. 1527-1533, November 1999.	
	19	Norman B. Nill, "A Visual Model Weighted Cosine Transform for Image Compression and Quality Assessment", IEEE Transactions on Communications, Vol. COM-33, No. 6, pp. 551-557, June 1985.	
	20	Andreas E. Savakis, "Evaluation of Algorithms for Lossless Compression of Continuous-Tone Images", Journal of Electronic Imaging, Vol. 11, No. 1, pp. 75-86, January 2002.	
	21	Dorian Kermish, "Image Reconstruction from Phase Information Only", Journal of the Optical Society of America, Vol. 60, No. 1, pp. 15-17, January 1970.	
	22	John A. Saghri, Andrew G. Tescher, and John T. Reagan, "Spaced-Based Data Compression Issues", Journal of Electronic Imaging, Vol. 3, No. 8, pp.301-310, July 1999.	
	23	N. Beaucoudrey, T. Seren, D. Barba, and X. Morin, "Data Compression for Transmission of Polarimetric SAR Signal by Vector Quantization - Performance Evaluation", CEOS, 1999.	
	24	Hans Marmolin, "Subjective MSE Measures", IEEE Transactions on Systems, Man, and Cybernetics, Vol. SMC-16, No. 3, May/June 1986.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04.

³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231